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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,860	12/27/2001	Christopher John Nielsen	A363 0020 GNM/bds	1173

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OYEN, WIGGS, GREEN & MUTALA LLP
480 - THE STATION
601 WEST CORDOVA STREET
VANCOUVER, BC V6B 1G1
CANADA

EXAMINER	
DAVIS, CYNTHIA L	
ART UNIT	**PAPER NUMBER**
2616	

DATE MAILED: 06/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/026,860	NIELSEN ET AL.	
	Examiner	Art Unit	
	Cynthia L. Davis	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-45 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) 1, 6-12, 17, 20-21, 23, 32-35, and 43-45 is/are rejected.

7)☒ Claim(s) 2-5,13-16,18,19,22,24-31 and 36-42 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

1. Misnumbered second claims 41 has been renumbered as 43.

2. Claim 43 is objected to for the following informalities: the claim is dependent on itself. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 6-9, 17, 20, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Baldwin.

Regarding claim 1, a method for controlling the dispatch of data on a telecommunication network, the method comprising: receiving one or more data streams at an interface on the telecommunication network, accumulating data from the one or more data streams for each of a plurality of outgoing channels; upon the accumulation of a threshold amount of data for one of the outgoing channels,

dispatching the accumulated data is disclosed in Baldwin, figure 5, element 517, and column 5, lines 44-47. If there is no accumulated data for an outgoing channel then upon the receipt of data for that outgoing channel which is not dispatched immediately, scheduling an expiry time for the outgoing channel and associating the outgoing channel with the expiry time; and, when the expiry time occurs, using the association to identify a group of one or more outgoing channels associated with the expiry time and, for the outgoing channels in the group, sending the accumulated data is disclosed in Baldwin, figure 5, and column 5, line 49-column 6, line 3 (there are different timers for different types or priority levels of data, this corresponds to different timers for different channels, see column 5, lines 62-66

Regarding claim 6, dispatching the accumulated data comprises dispatching one or more fixed-size cells is disclosed in column 6, lines 3-7 (ATM cells are fixed-length cells).

Regarding claim 7, the threshold amount of data is an amount of data required to fill one of the fixed-size cells is disclosed in figure 5, element 517.

Regarding claim 8, data for each outgoing channel is carried by a connection on an ATM telecommunication link and the fixed-size cells are ATM cells is disclosed in column 6, lines 3-7.

Regarding claim 9, receiving a plurality of data streams at an interface comprises receiving data frames at the interface and accumulating data destined for each of the plurality of outgoing channels comprises encapsulating the data frames for an outgoing

channel according to an ATM adaptation layer protocol is disclosed in figure 5, lines 44-47 (the CDMA packets are frames; they are converted into ATM cells).

Regarding claim 17, a method for controlling the transmission of fixed-sized data cells on a telecommunication link, the method comprising: receiving one or more data streams at an interface to the telecommunication link; assigning data from the data streams into fixed-size cells for transmission across connections in the telecommunication link is disclosed in Baldwin, figure 5, element 517, and column 5, lines 44-47. Upon the creation of a partially-filled cell to be transmitted on a connection, scheduling an expiry time for the partially-filled cell and associating the connection with the expiry time; and, when the expiry time occurs, using the association to identify a group of one or more connections for which there are partially-filled cells all associated with the expiry time and dispatching the partially-tilled cells in the group is disclosed in Baldwin, figure 5, and column 5, line 49-column 6, line 3 (there are different timers for different types or priority levels of data, this corresponds to different timers for different connections, see column 5, lines 62-66.

Regarding claim 20, sending the partially-filled cells comprises providing an indication that the identified partially-filled cells should be transmitted without further delay is disclosed in Baldwin, figure 5, element 503 and 505.

Regarding claim 23, the telecommunication link comprises an ATM link and the fixed-size cells comprise ATM cells is disclosed in column 6, lines 3-7.

2. Claims 32 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Brech.

Regarding claim 32, a outgoing packet assembler connected to place data packets onto the telecommunications link and a combined use timer connected to control the transmission of partially-filled data packets over the telecommunications link, the outgoing packet assembler being configured to provide a partial packet ready signal to be combined use timer upon the creation of a partially-filled packet containing less than a threshold amount of data is disclosed in Brech, column 5, lines 17-20 (the timer is started when the first packet is placed in the packet train, i.e. there is a ready partially-filled train). The combined use timer comprising a timer maintaining a current time value, a calculator connected to determine an expiry ready signal, a data structure capable of holding information identifying groups of partially filled packets which share a common expiry time, and comparison logic connected to signal to the outgoing packet assembler when the expiry time for a group of one or more partially-filled packets which share a common expiry time has occurred is disclosed in Brech, column 5, lines 20-34 (the timer creates windows for the sessions; some sessions may have the same windows, when the window expires, the packets trains are sent for processing).

Regarding claim 35, the outgoing packet assembler being connected to provide a packet sent signal when a previously created partially-filled packet is transmitted and the combined use timer comprising means for removing reference to the previously created partially-filled packet from the data structure in response to the packet sent signal is disclosed in Brech, figure 8, and column 6, lines 43-53 (the packet train data structures are destroyed upon transmission of a partial packet train).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 10-12 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baldwin in view of Brech.

Regarding claim 10, dispatching the accumulated data comprises sending one or more variable-size packets is missing from Baldwin. However, Brech discloses in column 6, lines 11-16, that in the case of an exception condition, the train is flushed, no matter how many packets are in the train, which would result in variable sized train packets. It would have been obvious to one skilled in the art at the time of the invention to use the flushing method of Brech in the system of Baldwin. The motivation would be account for the situation where resources for processing packets are low (Brech, column 6, lines 5-6).

Regarding claim 11, the threshold amount of data is less than a maximum amount of data capable of being carried by one of the variable-size packets is missing from Baldwin. However, Brech discloses in column 6, lines 11-16, that in the case of an exception condition, the train is flushed, no matter how many packets are in the train, which would result in less than the maximum amount of data being sent in a packet. It would have been obvious to one skilled in the art at the time of the invention to use the flushing method of Brech in the system of Baldwin. The motivation would be account

for the situation where resources for processing packets are low (Brech, column 6, lines 5-6).

Regarding claim 12, the threshold amount of data is equal to a maximum amount of data capable of being carried by one of the variable-size packets is disclosed in Baldwin, figure 5, element 517 (the packet is transmitted when full).

Regarding claim 21, tilling a partially-filled cell before the expiry time, dispatching the cell and deleting the association of the connection with the expiry time is missing from Baldwin. However, Brech discloses in figure 8 and column 6, lines 43-53, an exception condition occurring before expiration of the timer, which flushes the train destroys all of the data structures (including the timer) that are used to track the packet train. It would have been obvious to one skilled in the art at the time of the invention to use the exception-handling system of Brech in the system of Baldwin. The motivation would be account for the situation where resources for processing packets are low (Brech, column 6, lines 5-6).

4. Claims 33-34 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baldwin in view of Brech.

Regarding claim 33, the data packets consisting of fixed-size cells is missing from Brech. However, Baldwin discloses in column 6, lines 3-7, a similar system being implemented in an ATM system, which uses fixed-size cells. It would have been obvious to one skilled in the art at the time of the invention to implement the system of Brech in an ATM system, such as is done in Baldwin. The motivation would be to use ATM, which is a common type of network.

Regarding claim 34, the threshold amount of data being equal to a data payload of one of the fixed size cells is missing from Brech. However, Baldwin discloses in figure 5, elements 517 and 505, that when the ATM cell payload is full, it is transmitted. It would have been obvious to one skilled in the art at the time of the invention to have the payload of the cells as the threshold amount of data. The motivation would be to not try to overfill a cell.

Regarding claim 45, the threshold amount of data being equal to a data payload of one of the fixed size cells is missing from Brech. However, Baldwin discloses in figure 5, elements 517 and 505, that when the ATM cell payload is full, it is transmitted. It would have been obvious to one skilled in the art at the time of the invention to have the payload of the cells as the threshold amount of data. The motivation would be to not try to overfill a cell.

5. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baldwin in view of Saidi.

Regarding claim 44, the threshold amount of data being smaller than the maximum data payload of one of the data packets is missing from Brech. However, Saidi discloses in figure 10, element 1004, having a minimum threshold length for train packets that is smaller than the maximum length in element 1000. It would have been obvious to one skilled in the art at the time of the invention to use the minimum threshold length of Saidi in the system of Brech. The motivation would be to control and balance the queuing delay and bandwidth waste created by sending padded packets (see Saidi, paragraph 72).

Allowable Subject Matter

6. Claims 2-5, 13-16, 18-19, 22, 24-28, 29-31, and 36-42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cynthia L. Davis whose telephone number is (571) 272-3117. The examiner can normally be reached on 8:30 to 6, Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CLD

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600